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EXAMINER

DICUS, TAMRA

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/655,987

Filing Date: September 06, 2000

Appellant(s): WARD, CALVIN B.

Calvin B. Ward
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/25/08 appealing from the Office action mailed 5/1/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Related divisional: 10/278,190.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

The rejection of Claims 23 and 27 with the heading and statute recitation are under 102(b), while the rejection statement inadvertently stated it was under 103(a). The body of the rejection was written as a 102(b) and

obviousness language was not used, therefore the rejection of Claims 23 and 27 are under 102(b) as adjusted below.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,992,121	RUBINO	02-1991
5,888,604	EVANS, JR. ET AL.	03-1999
6,159,325	GRAHAM ET AL.	12-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 23 and 27 are rejected under 35 U.S.C. 102(b) as being unpatentable over USPN 4,992,121 to Rubino.

Rubino teaches a method of protecting an exposed surface (a support surface to which an object and intermediate sheet are electrostatically adhered, thus construed as an exposed surface because the object and sheet are separately affixed prior to application to the support surface-5: 60-68) providing an object/display such as a poster of paper, felt (embraces fibrous mat, claim 23), or any plastic (inherently absorbent layer, 5:20-45) bonded to an electrostatically charged foam (2:35-60, 5:20-40). The electrostatically charged sheet has an electrostatic charge obtained by rubbing fiber pads on the surface of an electrostatically chargeable intermediate polymeric sheet. The object and intermediate electrostatically charged laminate is placed on a support of wood, glass, or a door and stays on a support surface for at least one month without sliding or falling.

Rubino teaches electrostatic foam sheet attached to an absorbent of paper, felt, or plastic and the absorbent can be virtually any plastic (5:44-45), and preferably of polystyrene an inherently water-impermeable and thus resulting in a water-impermeable electrostatically charged sheet. Claims 23 and 27 are met.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8, and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,888,604 to Evans, Jr. et al. in view of US 4,992,121 to Rubino or alternatively in view of US 6,159,325 to Graham et al.

Evans, Jr. teaches a foldable mat for absorbing liquids (a protective covering for protecting an exposed surface (such as a floor)) wherein multiple layers of base and multiple layers of absorbent material are both made of nonwoven or solid sheet webs made of cellulose (embraces paper), wool, polyolefins, polyesters, glass or any combination that would allow the mat to absorb, dike, contain or filter fluids. The absorbent layer is divided by boundaries into segments that contain the liquid or fluids. Both layers are hydrophobic and thus are water-impermeable and liquid impermeable. The fluid stays within the cells as the boundaries are segmented as shown in FIGs. 2 and 9 and thus act as applicant's instant claims 1, 7, 25, and 28. The layers may also be water-resistant and substantially porous to allow liquid to flow through that layer and absorbed by the layer underneath (claims 8 and 26). See 2:1-15, 2:50-52, 3:20-60, 4:1-11, patented claims 1-5, 8-10, 13-15.

Evans does not teach the layers are electrostatically charged (claims 1, 21-28).

However, Evans teaches the layers are of nonwoven or plastic material and placed on floors for instance.

Rubino teaches electrostatically charging wherein an object and intermediate electrostatically charged laminate is placed on a support of wood, glass, or a door and stays on a support surface for at least one month without sliding or falling. Rubino teaches an electrostatic foam sheet attached to an absorbent of paper, felt, or plastic and the absorbent can be virtually any plastic (5:44-45), and preferably of polystyrene an inherently water-impermeable material and thus resulting in a water-impermeable electrostatically charged sheet.

Graham teaches electrostatically charged thermoplastic nonwoven webs in displays and teaches it is well known that opposites attract and thus the electrostatically charged layer will cling to an uncharged layer (3:44-68, 4:1-22).

It would have been obvious to one having ordinary skill in the art to have modified the mat of Evans to substitute or electrostatically charge the water-impermeable layer of in order to further secure the layer to any surface or three-dimensional object so that it stays without sliding or falling as taught by Rubino and in order to adhere it to a substrate as Graham teaches it is well known that opposites attract and thus the electrostatically charged layer will cling to an uncharged layer as cited above.

Evans, Jr. doesn't teach an absorbent layer of open cell foam or that the foam is electrostatically charged per instant claims 3-4 and 21-22 or an absorbent fibrous mat and that it is also electrostatically charged per claims 5-6 and 23-24.

However, Rubino explains electrostatically charged foams can have a cell structure that is porous (an thus an open-cell plastic foam and act as absorbent material because it is of the same material as Applicant) for lightness and is flexible for rolling up, commercially available, and inexpensive (3:60-68, 4:1-30), thus one would have been inclined to use such material as Evans teaches the mat is rolled up or folded as taught above. Rubino as also set forth above teaches an electrostatically charged felt which is a fibrous mat and results in an electrostatically charged fibrous mat that is absorbent as it is the same material as Applicant.

It would have been obvious to one having ordinary skill in the art to have modified the mat of Evans to use open cell foam as an absorbent layer because Rubino explains it is light and flexible for rolling up, and is commercially available, and inexpensive (3:60-68, 4:1-30), thus one would have been inclined to use such material as Evans teaches the mat is rolled up or folded as taught above. It would have been obvious to one having ordinary skill in the art to have modified the mat of Evans to use electrostatically charged felt material as an absorbent layer because it is also light weight and inherently absorbs liquid.

(10) Response to Argument

Appellant argues Rubino, namely toward allegations of the material, function and to silent inherent characteristics. These allegations are not convincing because the material is the same and the function is also, thus it is inherently expected that the materials of Rubino function as Appellant, regardless if the characteristic is not explicitly stated within the reference.

Appellant also argues prior rejections which are moot as the current rejections of issue now contain the most current examination of the instant invention and are thus presently presented above.

Rubino teaches it is well known to electrostatically charge an electrostatically chargeable sheet of polymeric foam having an electric charge to adhere to namely any support surface for at least a month thereby forming an electrostatically charged polymeric closed cell foam intermediate sheet. This sheet is also laminated to paper or plastic sheets, serving as Applicant's absorbent sheet. See columns 3-5, especially col. 3, lines 5-23; col. 4, lines -1-5, col. 4, lines 35-40, and col. 5, lines 20-65.

Appellant argues that despite these teachings, the instant invention is not taught due to allegations that the foam sheet is not water-impermeable and points to an unproven example in an attempt to disprove teachings of Rubino.

Relying on basic scientific principles, a water-impermeable characteristic means no water permeates through the pores of a medium, and if said medium is a closed cell structure, which Rubino's foam is (see again col. 4, lines 1-5),

then it has no open pores and thus has the inherent characteristic of being water-impermeable because the pores and cells are closed, not allowing water to permeate through the sheet, despite Appellant's allegations to the contrary. While noting Appellant's polystyrene with holes, sponge, and rubber suit examples (which Rubino does not teach), a counter example would be the conventional coolers at a grocer normally made of polystyrene closed cell foam that keeps items inside it cool by the ice provided within it and when the ice melts, water is still kept within the cooler and doesn't escape through the pores of the foam.

Note also that in Appellant's sponge vs. rubber wet suit argument (top of pg. 9 of the brief), Appellant acknowledges a closed cell foam sheet can be water impermeable, and then contradicts this statement alleging closed cell foam is water permeable. The Examiner agrees with the former as it is consistent with scientific principle and while any sheet can be water permeable, Rubio's sheet is of the moment and is indeed water-impermeable.

Therefore sufficient evidence was provided to explicitly and implicitly provide a water-impermeable electrostatically charged sheet as claimed under inherency of 102.

Regarding the 103 rejection, Appellant alleges similar arguments to functions, i.e. holes and water-impermeability. Appellant alleges if a layer is hydrophobic it doesn't mean it's water-impermeable. Hydrophobic means a medium is incapable of absorbing water. If it does not absorb water, then no

pores of a medium allow water to pass, which means the medium is water-impermeable. Appellant points to the present application's Figures, however, holes are not claimed.

Appellant argues Evans teaching absorbing capability in an attempt to prove the layer is not water-impermeable. However, Evans teaches both the lower segmented and upper nonsegmented layers may have more than one function, such as having both hydrophobic and hydrophilic material in the absorbent layers and because they are hydrophobic materials they are equivalent in meaning to a water-impermeable sheet as well. Depending upon how one desires the liquid to flow, the function of Evan's invention changes to absorb and prevent liquid from spreading as described at col. 2, lines 20-55. Said layers are additionally of a solid sheet of hydrophobic material, more evidence to prove and have reason to believe the layers are water-impermeable with the same rationale as explained above. See Evans, col. 3, lines 24-55, especially line 45 – to absorb, contain, or filter fluids or vapors. Therefore the absorbent layer of Evan functions as Appellant's absorbent layer and when hydrophilic materials are employed either layer functions as Appellant's water-impermeable layer. Further note that the cell to cell prevention for the movement of liquid is in the absorbent layer, and Evans provides this function because the segmented absorbent layer shown in FIG. 9 has each segmented cell -14, 13, 12, and 11 containing a choice of either or both hydrophilic and hydrophobic materials and one having ordinary skill in the art would choose

the hydrophilic material for the segments to keep liquid water in the desired sectioned cell. For example, one could choose cell 14 of hydrophilic material to contain liquid only in that cell because it's separated from the rest of 13, 12, and 11, while keeping the top solid non-segmented base layer 10 a hydrophobic material to prevent water from permeating the pores of that layer only (Appellant argues against this definition, but these allegations are not consistent with scientific principle). One could also alternate 14, 13, 12, and 11 with hydrophobic and hydrophilic materials to ensure water flows or maintains in alternative sections. These examples are consistent with the teachings of Evans as Evans states any and all of the layers in any combination would allow absorb, dike, contain, filter to provide hydrophilic or hydrophobic properties dependent upon the end use of the application. Thus depending upon how one desires the liquid to flow, one could very well have made Appellant's invention by choosing certain materials in certain areas or layers in order to have had liquid flow and function in the desired way chosen. Appellant points to layer 21 in Fig. 2 of the instant application to show holes, however, these holes are not claimed and not of issue. And further, the holes at that section only assuming the holes would go through the entire layer, would permit liquid at that point only because there is no material there, but if surrounded by hydrophobic material, water would not be permitted in the areas surrounding the holes (and thus means it is water-impermeable despite Appellant's argument to the contrary). Thus, to this point, Appellant is

showing the very concept of how a layer can be both hydrophobic and water-impermeable (the sections around the holes) and of course it's permeable where the holes are because there is no pores with which to permeate through. But again, this is not of issue as it is not claimed. Appellant argues how water would flow (from the segmented cell to the top layer, presence of air gaps), however, as explained above, this would not happen and further has not been proven. Further to Appellant's contentions of conditions of water flow, Appellant is arguing conditions that are more than what's provided by the claim as there are no limitations to the amount or degree of absorption or repellency of the layers. Appellant requires absorbent material, and yet desires hydrophobic properties, well, the only way to obtain such a layer is to use absorbent material and structure and treat it with hydrophobic sections to have water absorbed and repelled in the respective sections, cells, and layers. Evans provides enough evidence to this regard to envision Appellant's instant invention. The rationale above applies to all speculative arguments of what would or could happen. There are a myriad of ways water could flow, and while Appellant has argued a lot of them, Appellant has not limited the claims to the extent argued. Additionally, arguments of counsel cannot take the place of factually supported objective evidence. See, e.g., *In re Huang*, 100 F.3d 135, 139-40, 40 USPQ2d 1685, 1689 (Fed. Cir. 1996); *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984).

Turning to the secondary references, Rubino and Graham were used to show the obvious reasons to electrostatically charge a water-impermeable sheet. Rubino and Graham both teach adhesion as a benefit of electrostatically charging a sheet. Appellant did not make any arguments to Graham, and thus all reasoning of record is maintained. However, to Appellant's arguments that Rubino's electrostatically charged layer would not be employed in Evan's layer 10 because that layer is not secured against anything. However, this is not true because the inner surface of layer 10 is adjacent to layer 10 and that surface one would electrostatically charge to promote interfacial adhesion and Appellant did not limit the claims to which side has the electrostatic charge, just that the layer is and the combination meets what is claimed. Furthermore, Evan's invention is a mat and is therefore used to protect a floor (see Evans, col. 1, line 15).

Appellant points to contentions that the combination would not provide for modification to an electrostatically charged sheet due to time of contact what allegedly would happen with the interaction of liquid and ions. The Appellant has not persuasively argued because Appellant has not claimed a permanent charge that remains on the sheet at the end of treatment. By definition "electrostatic" means an electric charge is present. Because the treatment is on the film, electric charges are present within or on the film. At some point, it must contain a charge, Appellant has not limited the claim to an amount of charge the sheet must hold. There are a myriad of ways liquid could

flow and interact with ions, however, Appellant has not limited the claims to the extent argued.

Appellant argues claims 4 and 6, alleging the properties of electrostatically charging foam and alleging a non-electrostatically charged foam would work also, however, Rubino explicitly teaches beneficial properties as stated in the 102(b) rejection and rationale explained above and Appellant does not claim a non-electrostatically charged foam, thus this is not an issue.

Appellant argues claim 6 in that Rubino doesn't teach the objects on the wall are also electrostatically charged, however, this is where the teaching of Graham is applied because he teaches electrostatically charging nonwoven fabrics of thermoplastic material, papers and the like for again increasing adhesion (see Graham, col. 2, lines 35-50).

Thus in view of both Rubino and Graham, it is obvious to modify Evans with electrostatically charged layers.

Appellant argues claim 7, however, the segmented cell hydrophobic barriers have been explained above as being taught within the scope of Evans, that the outer surface of the segmented cell barriers (again 14,13, 12, 11, FIG. 9) is hydrophobic is not claimed but Evans would imply this because those segments within the entire layer are made of hydrophobic material. The Appellant should note col. 2, lines 49-53 in context with col. 3, lines 40-65 explicitly teaching the hydrophobic barrier is within the absorbent layer as the claim recites.

To claims 4, 6, 21-24, 26, and 27, Appellant repeats arguments made above, and thus the Examiner repeats answers made above. Further to claim 24, Rubino teaches electrostatically charging closed cell foam, and Graham teaches it is also well known to electrostatically charge not only plastic but other materials as aforementioned for clinging and thus adhering purposes. Under Section 103, the obviousness of an invention cannot be established by combining the teachings of the prior art references absent some teaching, suggestion or incentive supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). This does not mean that the cited prior art references must specifically suggest making the combination. *B.F. Goodrich Co. M Aircraft Braking Systems Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996); *In re Nilssen*, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988)). Rather, the test for obviousness is what the combined teachings of the prior art references would have suggested to those of ordinary skill in the art. *In re Young*, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). This test requires us to take into account not only the specific teachings of the prior art references, but also any inferences which one skilled in the art would reasonably be expected to draw therefrom. *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). The combination is therefore properly combined.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Tamra L. Dicus/

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